STATE OF NORTH CAROLINA, DEPARTMENT OF ADMINISTRATION					
DIVISION OF PURCHASE AND CONTRACT					
116 West Jones Street, Raleigh, NC 27603-8002					
Term Contract	035A-	Automatic Weather Observation System (AWOS)			
<b>Effective Dates</b>	February 16, 2012 through February 15, 2015				
Bid Number	201101851				
Administrator	Primary Contact-Bobby Walston, P.ENCDOT-919.840.0112				
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Last Updated	February	16, 2012			

## 1. General Information

It is the intent of the North Carolina Department of Transportation (NCDOT), Division of Aviation (NCDOA) to contract for the purchase, installation and maintenance of Automated Weather Observation Systems (AWOS) and maintenance to the Very-High Omnidirectional Range (VOR) located on the Dare County Airport (MQI). AWOS systems shall be installed turnkey with all equipment, peripherals, training, installation, and interface to Weather Message Switching Center Replacement (WMSCR) through the National Airspace Data Interchange Network (NADIN). The Vendor shall be responsible for all coordination and communication with the FAA, NCDOA, and local Airport Sponsors with the exception of the FAA 7460 forms, FCC applications for VHF broadcast transmitter and sponsors agreement, which airport sponsors and the NCDOA will handle.

NCDOA will purchase NADIN/WMSCR interface packages. These packages shall be complete and include all interface, software, connection and operation to accomplish connection from any FAA approved AWOS. Warranty shall be identical to the rest of the equipment.

NCDOA shall purchase AWOS System Maintenance. This service is provided in four month periods (tri-annually) and offers services as described in this specification, Section 8.0 Maintenance and Operation. Included under this item shall be purchase of spare and replacement parts for any new or existing AWOS and related peripheral equipment and will be determined on an as needed basis.

Only vendors with a history of successful installation, operation and maintenance of AWOSs and NADIN/WMSCR interface need respond. Vendors with a history of non-acceptable response may be disqualified. An example of non-acceptable response is a failure to supply parts, supplies, and lack of technical support for systems. All equipment provided by the vendor is to be new.

The NCDOA has adopted policies and procedures to ensure that a fair proportion of contracts facilitate the participation of small businesses (SBE), particularly small disadvantaged or minority business enterprises (MBE), women business enterprises (WBE), and disabled veteran business enterprises (DVBE). The target participation goals for this contract are to be measured as a percentage of the system maintenance value of the contract:

25% of system maintenance service to be performed by an SBE. The successful vendor will be required to provide proof throughout the contract period.

Only contractors currently certified as an SBE Contractor by the Contractual Services Unit of NCDOT and who are listed in the Directory of Transportation Firms at bid opening will be considered eligible towards this contracts participation goal of 25%. Prospective bidders who qualify for the SBE Program and are not currently certified should submit a completed application packet prior to bid submittal to allow for review time. The application packet and additional information on the program may be obtained online at: <a href="http://www.ncdot.org/business/ocs/sbe/">http://www.ncdot.org/business/ocs/sbe/</a>

#### 1.0 PROIECT SCOPE

The NCDOA intends to purchase, install, and maintain AWOS weather systems at North Carolina airports. Vendor shall have FAA approved AWOS equipment at the time of bid submittal and provide copies of such approval with their bid submittal. Every system shall contain at the minimum:

Automated Weather Observation Equipment approved by the FAA for Non-Federal AWOS with a video display terminal, printer, VHF transmitter, telephone call-in access for weather and stored data.

FAA approved equipment, software, interface connection and operation of AWOS data transfer through NADIN to the WMSCR.

For new and replacement system requests, installation, testing, and FAA commissioning of the complete system shall be ready for FAA commissioning within 9 months of notice to proceed.

AWOS manufacturer is to provide a warranty for each system for a minimum of 1 year from commissioning date of each system.

### 2.0 CONFIGURATION

These systems shall be FAA approved AWOS units and shall include all FAA required sensors. The systems shall provide output in the form of a video display unit, printer, telephone modem for call-in access and data retrieval, and a VHF transmitter for AWOS voice broadcast on VHF. The system shall be connected to the WMSCR through NADIN. Outputs shall conform to current FAA/NWS format.

Vendor shall be approved by the FAA to enter AWOS data to NADIN, or use a subcontractor that has such approval and provide written copies of that approval with bid submission. Vendor shall provide all necessary FAA approved and required hardware, software, interface, operation and connection of the data link to the WMSCR. Data shall be transmitted to WMSCR a minimum of 3 times per hour. NCDOA will not accept any NADIN or WMSCR connection configuration that requires any present or future telephone line costs to be incurred by NCDOA or the airport sponsor.

### 3.0 INSTALLATION

NCDOA or its representative will approve any installation or replacement of AWOS's at new or existing sites. Siting, FAA and FCC approval for new sites or replacement equipment shall also be the responsibility of the airport or NCDOA or its representative. AC power and telephone line are to be supplied by the local airport sponsor. These lines will be buried to the site and extra cable left above ground so the installer can connect to the electrical disconnect and telephone interface provided as part of the AWOS. Every effort will be made to provide extra pairs in the line; however, not all telephone lines may run directly to the terminal from the AWOS site. The vendor shall have a pre-construction meeting, if requested, with NCDOA, airport sponsors, and other interested parties at each site prior to start of construction.

All civil work to be accomplished by vendor and shall include any foundations, grounding and lightning protection, power to all sensors, and true north marker.

Vendor shall install any required towers, all equipment including sensors, signal cables, communications cables, data link equipment, etc. The vendor shall provide installation of all hardware and software at a central data center, if necessary, and at each airport. If existing AWOS equipment is to be removed the vendor will coordinate with the local airport sponsor and will be responsible for removal.

Method of transmission of data between the sensor site and terminal building shall be the option of the vendor. Telephone line, direct cable or RF link is acceptable. If RF link is used vendor shall be responsible for FCC approval. Any interference to any airport related equipment such as security systems, computers, telephones, UNICOM transceivers, hand held transceivers, airport lighting, etc. created by the installation of any equipment associated with this project shall be the responsibility of the vendor to resolve at no cost to the NCDOA or the local FBO or sponsor. Resolution of interference shall not degrade the performance of any existing airport equipment, such as "desensing" receivers, etc.

# 4.0 REQUIRED PERFORMANCE

Before each site proceeds to commissioning, all products at a site must concurrently perform at an average effectiveness level of 95% or more, calculated over a period of 30 consecutive days. If any site does not meet the standard of performance during the initial 30 consecutive days, the acceptance period shall continue on a day-to-day basis until the site meets the standard of performance for 30 consecutive days. Before each site shall be commissioned, it shall meet the required performance.

#### 5.0 COMMISSIONING

Vendor shall perform calibration and prepare all documents and documentation for site commissioning as required by the

FAA and participate in FAA site commissioning and, if required, flight check. Vendor will not be held responsible for commissioning delays caused by the FAA.

#### 6.0 WARRANTY

All warranty including NADIN and WMSCR data link shall be guaranteed by the AWOS manufacturer for minimum of 1 year following commissioning of that sites equipment. NCDOA shall have single point of contact with the AWOS manufacturer form all warranties with a minimum term of one year on all systems.

### 7.0 MAINTENANCE AND OPERATION

If contracted by the NCDOA for AWOS Maintenance Service, the vendor shall provide the following:

The Vendor shall be required to perform all scheduled (i.e., periodic) and unscheduled (i.e., repair) maintenance operations in accordance with the AWOS manufacturer's recommendations including at a minimum, tri-annual maintenance.

The vendor shall furnish a filled out NCDOA Pre-Approval and Work Authorization Form (NC AWOS-1 Form) for any identified and requested repairs and equipment upgrades. The vendor shall have this form signed by NCDOA rep before any work is authorized. Once work is complete the vendor shall return completed form to NCDOA.

The Vendor shall dispatch a maintenance technician to any AWOS site not operating within the manufacturer's specifications within 48 hours of notification. The Vendor shall notify the AWOS owner of any repairs requiring an excess of 72 hours to accomplish.

The Vendor shall maintain a log of all repair and inspection activities at all AWOS locations.

AWOS maintenance technicians shall meet the requirements of Order 6700.20A (Non-Federal Navigational Aids and Air Traffic Control Facilities.) In addition, they shall have the special knowledge and skills needed to maintain the AWOS facility and shall be approved by the manufacturer. They shall be proficient in maintenance procedures and the use of specialized test equipment.

The maintenance technician shall have all test equipment required by the manufacturer for maintenance and calibration of the facility. Test equipment should be calibrated in accordance with the schedule submitted to (and approved by) the FAA during Type Acceptance. Test equipment calibration should be traceable to National Standards, and proof of calibration (e.g., a current calibration sticker) should accompany each piece of test equipment when it is being used. Test equipment will not be provided by the AWOS owner.

Vendor shall acquire necessary repair parts from supplier or manufacturer of the equipment.

The Vendor shall remotely monitor monthly each AWOS location a minimum of four (4) times per day on a seven (7) day a week basis. Such monitoring shall include, but is not limited to; system outages, assurance of complete weather data and key system parameters in accordance with the manufacturer's recommendations. The Vendor shall immediately notify the Airport, in a manner deemed appropriate, of any system not operating within the manufacturer's specifications.

At the option of NCDOA, vendor shall provide the first year maintenance to FAA requirements of each site as part of the bid. This maintenance period shall start from the date of FAA commissioning for each particular site.

The vendor warrants that the availability of replacement parts for each complete system shall be available for a minimum of 7 years following commissioning. Should a system become unsupportable during this 7-year period the vendor shall be obligated to replace, at no charge to the state, the complete system with one that can be supported for the remainder of the 7 year period.

The vendor shall be responsible for updating all software and complying with all license agreements for such software. Any software enhancements that are made to comply with FAA and or NWS requirements during the life of the systems shall be implemented in the system at no additional cost to the state. It is expected that the system shall be fully operational 24 hours a day.

For the state-wide system to be effective, the out of service time must be minimized. During the one year period following the commissioning and if the vendor is contracted to perform the maintenance, the vendor shall determine a system outage within 6 hours of failure and shall take immediate steps to restore it to full operation.

It shall be the responsibility of the vendor to identify a system that has failed, contact the airport where the system is located, troubleshot the system to find the problem and resolve it. If the vendor is contracted to conduct the maintenance on the AWOS, the vendor will have 72 hours to restore the system to full operation unless a longer period is approved by NCDOA. If the vendor is not contracted to perform the maintenance of the AWOS, the vendor shall contact the service technician currently assigned to perform the maintenance and notify them of the problem. Notification of the problem to the service technician shall occur within 48 hours of the site being out-of-service.

A site is considered to be out-of-service if it does not properly report all required data from any of its outputs and/or all data does not show up on the WMSCR, or if it must be released to the vendor for unscheduled remedial services. Out-of-service time shall commence when the system detects missing or faulty data or the State of Sponsor reports a malfunction to the vendor and shall end when the site is returned to service with all outputs and functions operating correctly.

The vendor shall grant a credit to the State for any site under current maintenance that fails to perform at an effectiveness level of 98% or more during any month during the one year warranty period. The effectiveness level is the percentage of scheduled in-service time during which site is not out-of-service. The credit shall equal to 1/10 of one percent of the monthly maintenance and operation charge for the site for each percentage point by which the effectiveness level falls below 98%. Inservice time shall not include scheduled preventative maintenance time or scheduled engineering change time. On units not being maintained by the vendor, this credit still applies, however only if the service technician has responded appropriately and delays are outside of their control.

For sites where the vendor is contracted for maintenance and service, if any site is out of service for two consecutive months or longer, at the discretion of the NCDOA, the state will not be billed for the operation and maintenance. The period of the maintenance contract shall be extended by the number of months the site was out of service. Partial month's out-of service after the first two shall be counted as whole months for the above purposes.

The vendor shall provide the NCDOA with designated points of contact to enable NCDOA to contact maintenance personnel of outages.

The vendor shall also provide a malfunction report after completion of a maintenance call. The report shall include the following:

- 1. Site of AWOS
- 2. Date and time notified
- 3. Date and time of arrival
- 4. Date and time when system is returned to operation
- 5. Description of malfunction and repairs performed, including parts replaced.

The vendor shall provide a monthly report, at the discretion of the NCDOA that details the status of the hourly AWOS data transmissions to the WMSCR for each site. This report shall include operational status of the NADIN data transfer package and shall document periods of down time at all sites.

## 9.0 VOR SYSTEM MAINTENANCE

This item includes providing required Scheduled Service, Preventative Maintenance, and Equipment Restoration for the VOR/DME navigational aid located at the Dare County Regional Airport (MQI), Manteo, NC – (RBX VOR/DME).

Scheduled Service consists of such periodic routine tests and adjustments as may be required by the equipment manufacturer and by the FAA for non-Federal facilities in accordance with 14 C.F.R. Part 171 and AC 150/5220-16C as they may be modified or superseded from time to time.

Preventive Maintenance consists of inspection, functional checks, adjustments, replacement of failed components and cleaning in accordance with the equipment manufacturer's published guidelines and requirements.

Scheduled Service and Preventative Maintenance requirements should be determined by the vendor for one year of service. Vendor shall provide this schedule as a part of their bid proposal. This item will be paid for as VOR System Maintenance on a tri-annual basis.

Equipment Restoration will be utilized in the event of an unplanned equipment failure or outage. The vendor shall commence restoration work within one (1) business day after the outage is reported and complete restoration services in a reasonable prompt manner. Diagnosis may be performed remotely and render the system inoperable until which time replacement equipment/parts can arrive to VOR site.

Equipment Restoration will be paid for as a VOR Unplanned Outage Fee and only when an unplanned/non routine visit is required to the site.

All services provided by the vendor shall be performed by qualified field technicians and other personnel having all required certifications and licenses required by the FAA. The vendor shall record test results in a station log and maintain the required 6000 series records, copies of which will be provided to the FAA as required.

# 2. Scope of Contract

The scope of this contract is intended to cover the State's normal requirements for AWOS as specified herein for 36 months.

## 3. Taxes

Prices or Discounts shown herein do not include any North Carolina sales or use taxes.

#### 4. Abnormal Quantities

# Contact NC DOT for more information

# 5. Minimum Orders

This contract will be for a minimum order of 1 unit for any single order.

# 6. Placement of Orders

Contact NC DOT for more information.

## 7. Delivery

Contact NC DOT for more information.

# 8. Transportation Charges

Contact NC DOT for more information.

# 9. Item Pricing Information

ITEM	UOM	DESCRIPTION	UNIT COST
1.	ea	1. AWOS III P	\$64,403.00
2.	ea	AWOS NADIN Data Collection Service-price per Unit on a Tri-annually basis	\$720.00
3.	ea	AWOS System Maintenance price per Unit on a Tri-annually basis	\$4,200.00
4.	ea	VOR System Maintenance / Tri-annually	\$19,500.00
5.	ea	VOR Unplanned Outage Fee / Occurrence	1,500.00
6.	е	OPTIONAL ITEM AWOS II / Unit	\$49,171.00
7.	ea	OPTIONAL ITEM Thunderstorm / Lighting Sensor / Unit	\$11,529.00
8.	ea	OPTIONAL ITEM UPS / Backup Power Supply / Unit	\$3,626.00
9.	ea	OPTIONAL ITEM Precipitation Gauge (Tipping Bucket) / Unit	\$1,041.00
10.	ea	OPTIONAL ITEM Upgrade to Ultrasonic Wind Sensor / Unit	\$1,490.00

# 10. Price Lists and Catalogs

The successful contractor must furnish descriptive literature to any agency within seven (7) consecutive days after request of the agency. Failure to comply with these requirements may subject the contractor to removal from the contract.

## 11. Contractors

All known minority, women and disabled owned businesses, as well as disabled business enterprises and nonprofit work centers for the blind and severely disabled, including dealers, will be identified with "Minority owned" "Woman owned", "Disabled Owned", "DBE" or "BSD" as appropriate after the vendor number. This is being done in an effort to recognize these businesses and to encourage and promote their use to the greatest extent permitted by law.

When more than one supplier is listed for a particular item, selection should be made, whenever possible, from any of the groups identified above, consistent with agency needs and price considerations.

Contractor Name	Address / Federal ID	City, State, Zip	Contact, Phone, Fax
Vaisala, Inc.	194 S. Taylor Ave.	Lousiville, CO 80027	Michael Trosclair
	Contact vendor for Federal ID		877.327.2967

# 13. Contract Addenda